

Abstract of the Disclosure

An integrated circuit (70) having parallel scan paths (824-842, 924-942) includes a pair or pairs of scan distributor (800,900) and scan collector (844,944) circuits. The scan paths apply stimulus test data to functional circuits (702) on the integrated circuit and receive response test data from the functional circuits. A scan distributor circuit (800) receives serial test data from a peripheral bond pad (802) and distributes it to each parallel scan path. A scan collector circuit (844) collects test data from the parallel scan paths and applies it to a peripheral bond pad (866). This enables more parallel scan paths of shorter length to connect to the functional circuits. The scan distributor and collector circuits can be respectively connected in series to provide parallel connections to more parallel scan paths. Additionally multiplexer circuits (886,890) can selectively connect pairs of scan distributor and collector circuits together. The scan distributor and collector circuits can be formed in core circuits (704). The core circuits then can be connected to other core circuits and functional circuits with simple connections to the parallel scan circuits through the scan distributor and collector circuits.